

## **REMARKS**

The Office Action dated May 3, 2006, and the patents and publications cited therein have been carefully reviewed, and in view of the above changes and following remarks reconsideration and allowance of all the claims pending in the application are respectfully requested.

### **The Amendment To The Claims**

Applicants have amended claims 1, 2 and 9-11 to improve their respective forms in accordance with U.S. patent law. In particular, Applicants have removed the phrases “steps of” and “the step of” from the claims.

Additionally, claims 9 and 20 have been amended to improve their respective forms in accordance with U.S. patent law by now identifying a “selected master storage image” at various places within each of claims 9 and 20. Claim 21 has been amended for consistency with claim 20.

### **The Objection To The Drawings**

The drawings stand objected to because two figures are numbered incorrectly. In particular, in Figure 1, reference numeral “105” should replace reference numeral “104” and in Figure 4, reference numeral “402” should replace reference numeral “102”.

Applicants have attached replacement sheets and annotated sheets for Figures 1 and 4. In Figure 1, reference numerals 105a-105d have replaced reference numerals 104a-104b. In Figure 4, reference numerals 402a-402d have replaced reference numerals 102a-102b.

Consequently, Applicants respectfully request the Examiner to withdraw this objection.

### **The Objection To The Disclosure**

The disclosure stands objected to because several drawing descriptions are mislabeled.

Applicants have amended paragraph 23 of the disclosure, as set forth above, to correct the mislabeling of the drawing descriptions.

Consequently, Applicants respectfully request the Examiner to withdraw this objection.

**The Rejection Under 35 U.S.C. § 102(e) Over Watt**

Claims 1 and 12 stands rejected under 35 U.S.C. § 102(e) as anticipated by Watt, U.S. Patent Application Publication 2003/0126202.

Applicants respectfully submit that the present invention according to either of claims 1 and 12 is not anticipated by Watt. In particular regarding claim 1, Applicants respectfully submit that Watts does not provide a method of allocating storage to a system user of a storage area network that includes generating a plurality of replicas of each identified master storage image prior to at least one server being allocated to the system user. The Examiner cites paragraph [0046] of Watt as purportedly providing this feature of claim 1. It should be noted that paragraph [0046] of Watt discloses, without any details, that the Watt repository manager 210 is responsible for securely and efficiently provisioning and managing server images by allowing an administrator to pick and choose from the installed software base to create a master server image 217 that, once defined, can be rapidly replicated and configured using automated tools.

It should also be noted that Figure 3 of Watt shows details of a repository according to Watt. As disclosed by Watt, software that is to be executed is installed only once, regardless of how many servers will eventually execute the software. (See Watt, paragraph [0060].) The master installation is referred to as a “snapshot.” Figure 3 shows snapshots 302a-302n representing several different installed software applications for execution on various servers. (See Watt, paragraph [0061].) The snapshots 302 are combined to create a “golden master” server image 217, called a server class 304. Each server class is a list of snapshots that will eventually make up a specific image 217 or “personality” for a server. (See Watt, paragraph [0062].) Server images 217 are generated in an automated manner from a server class 304. According to Watt, working server image 217 is called an “instance” of the server class. The server mounts an instance as its root file system when the server boots. Each server can execute just one instance at a time and each instance can be mounted by only one server. (See Watt, paragraph [0063].)

Thus, the server images that the Examiner asserts the Watt system allows administrator to rapidly replicate and configure are lists of snapshots, not the claimed replicas of each identified master storage image of claim 1. Accordingly, Watt does not disclose generating the claimed replicas of each identified master storage image as required by claim 1.

Further regarding claim 1, Applicants respectfully submit that Watt does not provide a method of allocating storage to a system user of a storage area network that includes allocating a selected replica of the claimed plurality of replicas of the master storage image to each server allocated to the system user. Because Watt does not disclose the claimed replicas of claim 1, as demonstrated above, it follows that Watt does not disclose allocating a selected replica of the claimed plurality of replicas of the master storage image to each server allocated to the system user.

Thus, claim 1 is allowable over Watt.

Regarding claim 12, Applicants respectfully submit that claim 12 is allowable over Watt for reasons that are similar to the reasons that claim 1 is considered allowable. More specifically, Applicants respectfully submit that Watt does not disclose the claimed storage provisioning device that generates a plurality of replicas of each identified master storage image prior to at least one server being allocated to the system user; and that allocates a selected replica of the plurality of replicas of the master storage image to each server allocated to the system user. As demonstrated above, Watt does not disclose the claimed replicas of each identified master storage image as required by claim 12. Instead, Watt discloses that a server class is a list of snapshots that are combined to make a specific image 217 or “personality” for a server. Because Watt does not disclose the claimed replicas of claim 12, Watt does not disclose the claimed storage provisioning device that allocates a selected replica of the claimed plurality of replicas of the master storage image to each server allocated to the system user.

Thus, claim 12 is allowable over Watt.

Consequently, Applicants respectfully request that the Examiner withdraw this rejection and allow claims 1 and 12.

### **The Rejection Under 35 U.S.C. § 103(a) Over Watt In View of Sheets**

Claims 2-8 and 13-19 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Watt as applied to claim 1, and further in view of Sheets et al. (Sheets), U.S. Patent No. 6,819,905.

Applicants respectfully submit that the present invention according to any of claims 2-8 and 13-19 is patentable over Watt in view of Sheets. Applicants respectfully submit that Sheets does not cure the deficiencies of Watt with respect to either of claims 1 or 12, the respective base claims of claims 2-8 and claims 13-19. More specifically regarding base claim 1, Sheets does not disclose or suggest generating the claimed plurality of replicas of each identified master storage image. Further, Sheets does not disclose or suggest allocating a selected replica of the claimed plurality of replicas of the master storage image to each server allocated to the system user.

Regarding base claim 12, Sheets does not disclose or suggest the claimed storage provisioning device that generates the claimed plurality of replicas of each identified master storage image and then allocates a selected replica of the claimed plurality of replicas of the master storage image.

Consequently, Applicants respectfully request that the Examiner withdraw this rejection and allow claims 2-8 and 13-19.

### **The Rejection Under 35 U.S.C. § 103(a) Over Watt In View of Haun**

Claims 9 and 20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Watt in view of Haun et al. (Haun), U.S. Patent No. 6,751,058.

Applicants respectfully submit that the present invention according to either of claims 9 and 20 is patentable over Watt in view of Haun. Regarding claim 9, Applicants respectfully submit that even if Watt and Haun are properly combinable to form a basis for the rejection of claim 9, neither Watt nor Haun disclose or suggest a method of allocating storage between system users of a storage area network that includes generating a read-only copy of the read-only data portion of the claimed selected master storage image. Watt discloses in paragraph [0097] that a dependent instance 306 contains copies of just those files necessary to boot a server 308

and provide the server with a unique personality. The remainder of the image is shared with other dependent instances by referencing the read-only snapshot 302 containing the original files. Thus, Watt does not generate a read-only copy of the read-only data portion of the claimed selected master storage image.

Regarding Haun, Haun discloses at column 4, lines 66-67 and column 5, lines 2-3, that system volumes 174 are one or more protected, read-only, master copies of the operating system software. According to Haun, a bootfile is transferred from a network computer server (NC server) to a network computer client (NC client) by a file transfer technique when the NC client boots. (See Haun, column 5, lines 44-58.) Thus, Haun does not generate a read-only copy of the read-only data portion of the claimed selected master storage image. Instead, Haun provides a protected, read-only, master copy that is used by each NC client when the NC client boots.

Further regarding claim 9, Watt does not disclose or suggest allocating a separate writable data volume of the writable data portion of the selected master storage image to each server allocated to the system user, as admitted by the Examiner. (See Office Action dated May 3, 2006, page 14, lines 5-7.)

Thus, claim 9 is allowable over Watt in view of Haun.

Regarding claim 20, Applicants respectfully submit that claim 20 is patentable over Watt in view of Haun for reasons that are similar to the reasons that claim 9 is considered allowable. In particular, Applicants respectfully submit that neither Watt nor Haun disclose or suggest a storage provisioning device that generates a read-only copy of the claimed read-only portion of each master storage image. Further, Watt does not disclose or suggest the storage provisioning device that allocates the claimed separate writable data volume of the writable data portion of the selected master storage image to each server allocated to the system user.

Consequently, Applicants respectfully request that the Examiner withdraw this rejection and allow claims 9 and 20.

**The Rejection Under 35 U.S.C. § 103(a) Over Watt  
In View of Haun And Further In View Of Sheets**

Claims 10, 11, 21 and 22 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Watt in view of Haun, and further in view of Sheets.

Applicants respectfully submit that the present invention according to claims 10, 11, 21 and 22 is patentable over Watt in view of Haun, and further in view of Sheets. Applicants respectfully submit that Sheets does not cure the deficiencies of Watts and Haun with respect to claims 9 and 20, the respective base claims of claims 10 and 11, and claims 21 and 22. More specifically, Sheets does not disclose or suggest a method that includes generating a read-only copy of the read-only data portion of the claimed selected master storage image, or a storage provisioning device that generates generating a read-only copy of the claimed read-only portion of each master storage image.

Consequently, Applicants respectfully request that the Examiner withdraw this rejection and allow claims 10, 11, 21 and 22.

**CONCLUSION**

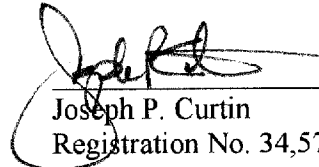
In view of the above amendments and arguments, it is urged that the present application is now in condition for allowance. Should the Examiner find that a telephonic or personal interview would expedite passage to issue of the present application, the Examiner is encouraged to contact the undersigned attorney at the telephone number indicated below.

A general authorization under 37 C.F.R. § 1.25(b), second sentence, is hereby given to credit or debit Deposit Account No. 09-0441 for the instant filing and for any other fees during the pendency of this application under 37 C.F.R. §§ 1.16, 1.17 and 1.18.

It is requested that this application be passed to issue with claims 1-22.

Respectfully submitted,

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REPLACEMENT

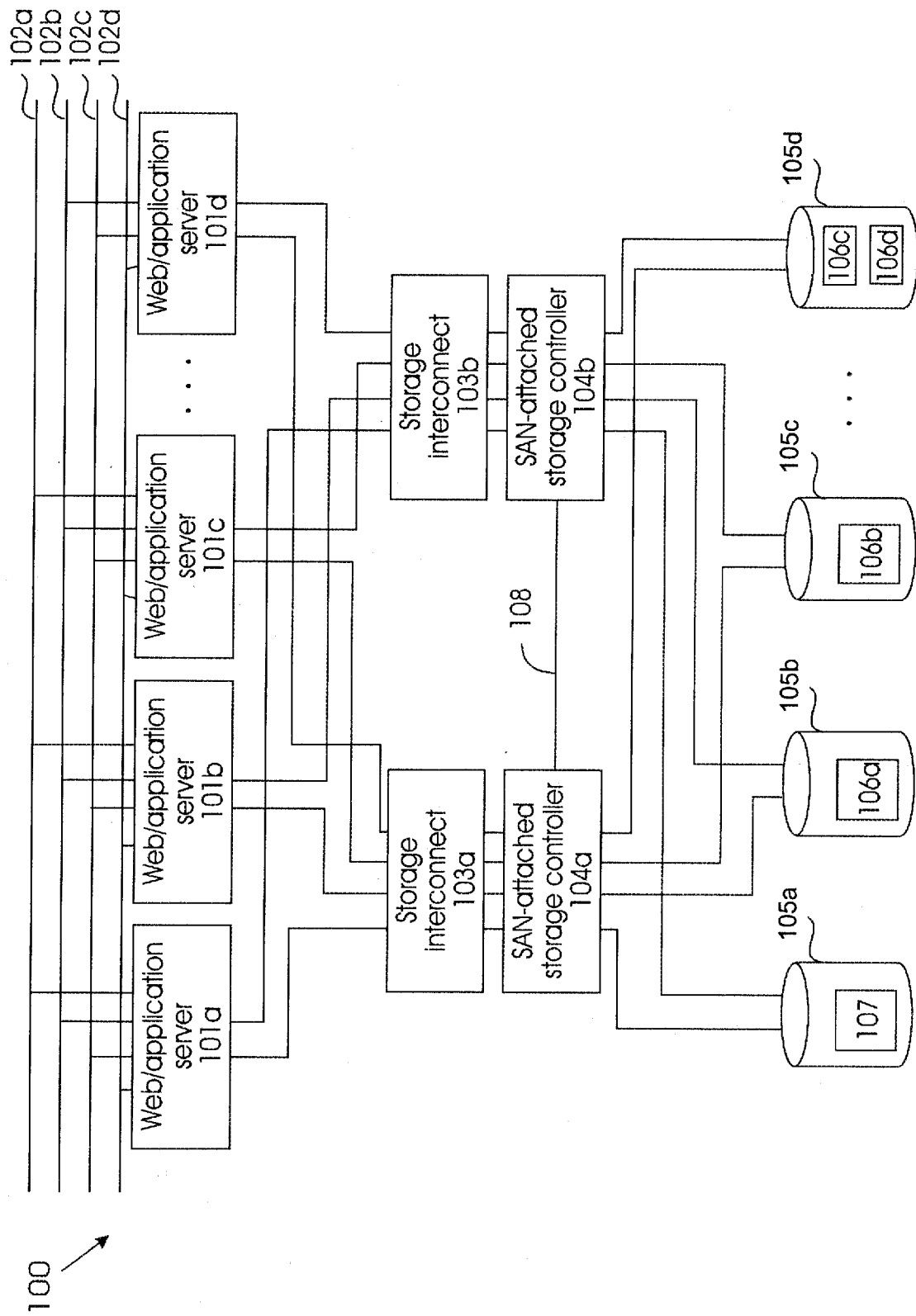


FIG. 1



REPLACEMENT

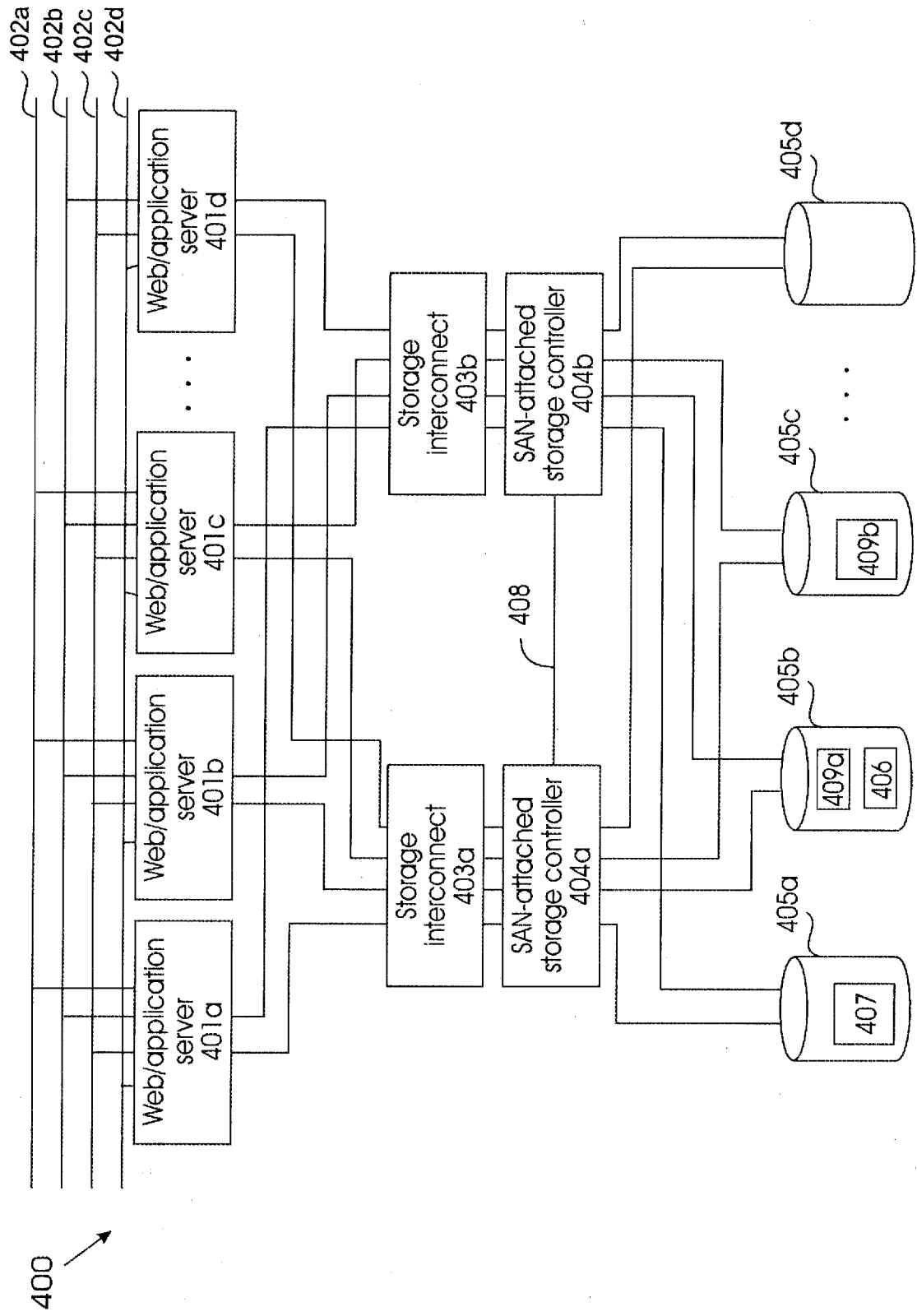


FIG. 4

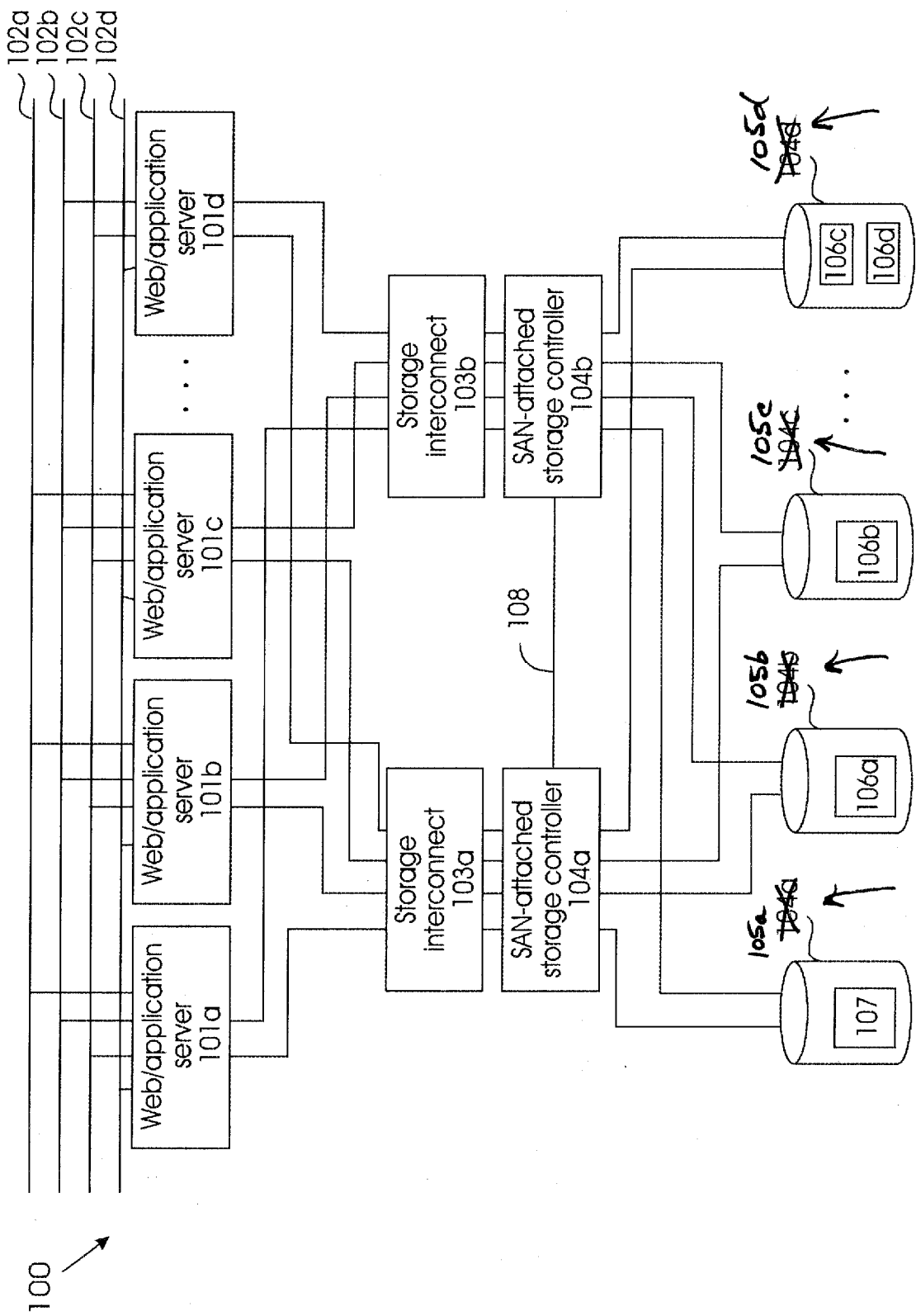


FIG. 1

ANNOTATED

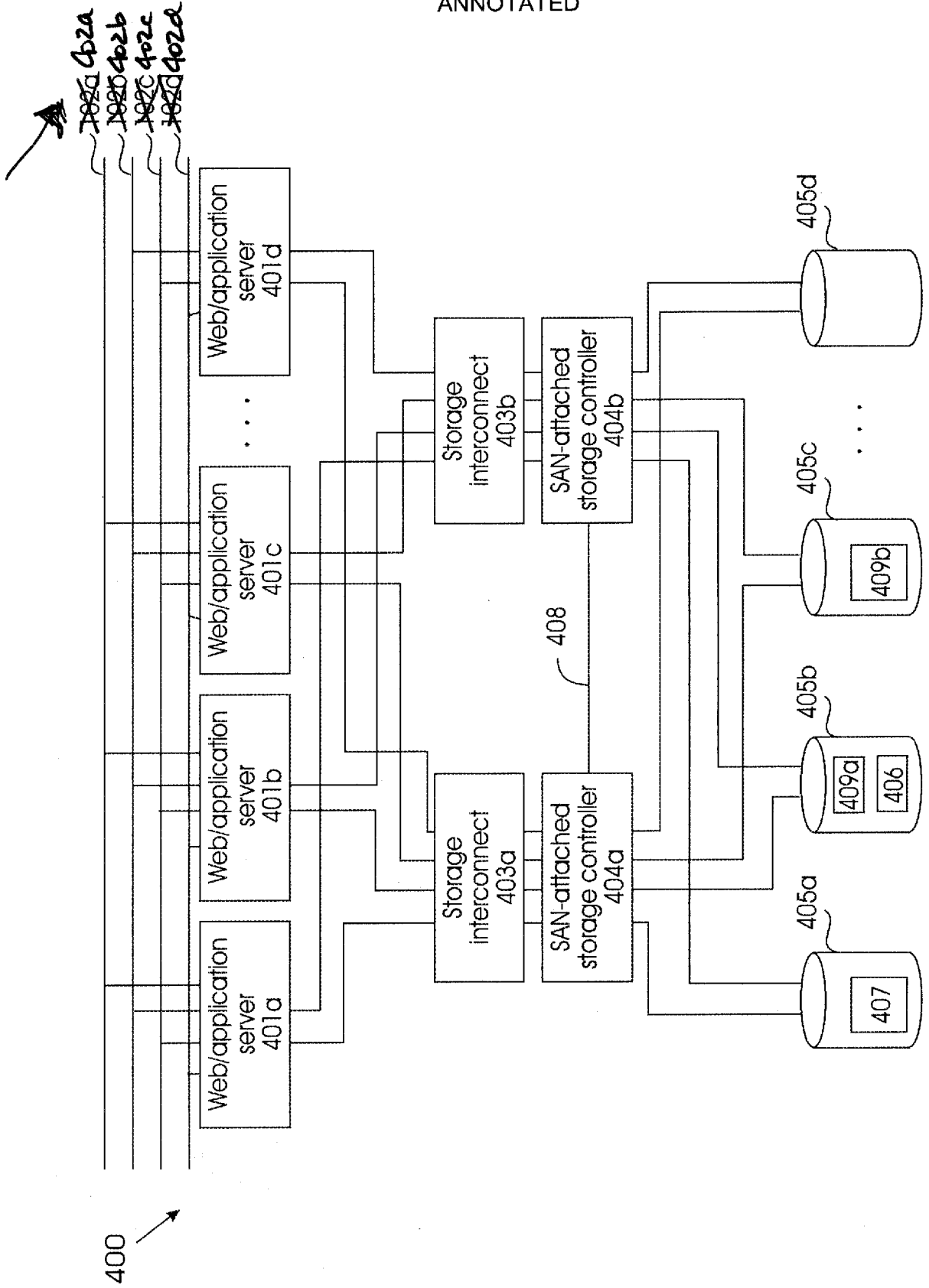


FIG. 4